

REMARKS

In response to the above-identified Office action, Applicant amends claims 1, 6, 16, 19, 28, 34 and 35 as shown above. No new matter is introduced by way of these amendments as discussed more fully below. As such, claims 1-25 and 28-35 remain pending. Applicant requests reconsideration and allowance of claims 1-25 and 28-35 in view of the following remarks and amendments.

The Office rejects claims 1-15, 19-25 and 28-35 under 35 U.S.C. §112, first paragraph, for failing to comply with the written description requirement. The Office asserts the claims recite subject matter that allegedly was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed subject matter. In particular, the Office asserts that the claim limitation of "ad-hoc queries" recited in claims 1, 6, 19, 28, 34 and 35 constitute new matter that is not supported by the specification. The Office reasons that the statement, "[t]he distributed schema also allows the information to be discovered dynamically as the situation on each of the monitored nodes changes," set forth at page 2, lines 26-28 in the specification, does not seem to support the notion of an "ad-hoc query," but rather seems to support "a set query that can be dynamically updated as the monitored information changes over time."

In response, Applicant amends claims 1, 6, 16, 19, 28, 34 and 35 to remove the term "ad-hoc" in the interests of advancing prosecution to expeditiously place this application in condition for allowance. Applicant respectfully notes, however, that no disclaimer of any subject matter is made by way of these amendments. Rather, claims 1, 6, 16, 19, 28, 34 and 35 have been further amended to cover the notion of event-driven queries that are ad-hoc or spontaneous in nature using different language and terms that are more explicit than the prior language.

As such, it is submitted that these amendments do not introduce any new matter since support is found in the originally filed application at claims 1, 6, 16, 19 and 28; FIGS. 2 and 5; and in the specification at page 4, line 14 through page 5, line 2; page 7, lines 4-9; and page 8, line 15 through page 10, line 60. In view of the foregoing amendments and remarks, it is believed that the outstanding § 112 rejection has been overcome. Accordingly, the Office is respectfully requested to reconsider and withdraw the rejection of claims 1-15, 19-25 and 28-35 under § 112, first paragraph.

As noted above, the amendments to claims 1, 6, 19, 28, 34 and 35 were made for the purpose of overcoming the § 112 claim rejections. Moreover, these claim amendments were not made for the purpose of overcoming the ensuing prior art rejections under 35 U.S.C. §§ 102, 103 discussed further herein below. Therefore, the amendments were not made

for reasons of patentability relating to distinguishing the amended claims from any applied art. As such, Applicant submits that the scope of claims 1–15, 19–25 and 28–35 should remain the same as it was prior to these amendments except in any cases where such changes may result in broader coverage.

The Office rejects claims 34 and 35 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. The Office asserts that the claims recite descriptive material that may or may not be an embodiment of a computer system or may or may not be embodied on a computer readable medium so as to be executable. The Office also asserts that it is unclear whether the “network management component” and the “network resource component” are software modules or whether they are devices that execute a computer readable medium or computer program product as required in M.P.E.P. § 2106.IV.B.1(a). In the interests of advancing prosecution to expeditiously place this application in condition for allowance, Applicant amends claims 34 and 35 to explicitly recite the subject matter being embodied on a machine-readable medium so as to be executable. The amendments to claims 34 and 35 do not introduce any new matter as support is found in the originally filed application at 19–25 and 28–33; FIGS. 2 and 5; page 4, line 14 through page 5, line 2; page 10, line 62 through page 11, line 11; and page 12, line 23 through page 17, line 15.

It is believed these claim amendments are sufficient to overcome the § 101 rejection of claims 34 and 35. As such, Applicant respectfully requests the Office to reconsider and withdraw this rejection. Since the amendments to claims 34 and 35 were made simply to make explicit what was implicit in the prior language of the claims with respect to the subject matter being embodied on a machine readable medium as mentioned above, the amendments were not made for reasons of patentability relating to overcoming any prior art rejections. As such, Applicant submits that the scope of claims 34 and 33 should remain the same as it was prior to these amendments.

The Office rejects claims 16–18 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,862,081 to Reed et al. (“Reed”), asserting that Reed discloses a machine-readable medium, including: a) a base class of type management element from which a plurality of classes are derived and which provides an access point to instances of the derived classes (col. 17, lines 5–21); b) a first derived class of the base class having elements with attributes comprising a display format attribute defining a manner for presenting information at one or more client devices which is obtained by an aggregator component on the management computing device via the access point and a display name attribute that identifies the information to be presented at the one or more client devices (col. 50, lines 25–46 and col. 71, line 59 through col. 72, line 21); and c) a second derived class of the base class being an on event class that defines a source and

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result relationship between at least two objects of the type management element having at least one particular result object being provided for at least one particular source object based on the aggregator component requesting the information via the access point (col. 41, line 63 through col. 42, line 15).

In response, Applicant amends claim 16 and respectfully submits the following remarks. Reed does not disclose nor suggest, "a base class ... which provides at least one access point ... which can be traversed to dynamically discover information about one or more associated computing devices ... based on one or more triggering events defined in at least one event class derived from the base class," as recited in claim 16. The Office's attention is respectfully directed to Reed at FIG. 1 and col. 11, line 65 through col. 12, line 58, which discloses a provider computer 1 with a provider database 11 that disseminates communication control information to be stored in a consumer database 21 of a consumer computer 2. Referring to col. 13, lines 36-46, the consumer program 22 performs functions based on changed information that is stored in the database 21 for future usage in connection with controlling and automating communications between the computers 1, 2. Furthermore, the user of the consumer computer 2 may be notified of the changes to the information in any number of ways, including displaying or printing the information, paging or e-mailing the user and still other notification methods.

Reed does not disclose, however, that the information maintained in either databases 11, 21 provide access points that could be traversed by either computers 2, 32 for dynamically discovering information about any associated objects managed by the consumer computer 1, such as the Web browser program 50 shown in FIG. 2. Basically, Reed discloses push and pull techniques for transferring data among the provider computer 1, consumer computer 2 and/or the distribution server 32 shown in FIG. 1. As discussed in Reed at col. 13, lines 5–10, programs executing on the provider computer 1 and the consumer computer 2 perform functions for transferring, maintaining and updating information at both locations, but there is no teaching or suggestion of any traversable access points being provided.

The Office's attention is now directed to col. 50, lines 25–45 and FIG. 20 in Reed, which describe including encoding control information within a composite communications object instance 900 that is distributed among each of the computers 1, 2 and 32 to provide an automated way for information senders to identify optimal encoding formats to use for recipients during communication sessions. Further, encoding methods can be shared among the communication session participants using the composite communications object instance 900, as disclosed at col. 50, lines 43–45. But, Reed does not disclose the encoding information included in the object instance 900 providing any sort of access point that could be traversed by any of the computers 2, 3 and/or 32, let alone dynamically

discover information about any associated objects managed by the computers.

As shown in FIG. 20 of Reed, the consumer computer 2 may obtain the composite communications object instance 900 that is disseminated by the provider computer 1 via the distribution server 32. Reed does not disclose nor suggest that the computer 2 traverses the object instance 900 to dynamically discover components 901 and/or 902 at computers 1, 32, respectively, based on any events defined in the databases 11 and/or 21. Nor does Reed disclose or suggest that the computer 2 may traverse the object instance 900 to dynamically discover any other computers in the communications network 3 that may be associated with computer 1 and/or server 32.

The Office's attention is now directed to col. 71, line 40 through col. 72, line 23 in Reed, which describes a special type of communication object 143 referred to as 'query elements.' Query elements contain special processing instructions when they are initially generated as communication objects. When the objects 143 are generated for transmission, data exchange methods associated with any query elements included in the objects 143 are executed to implement queries, as disclosed at col. 72, lines 6-9 in Reed. But the query element communication objects 143 are not disclosed in Reed as being traversed to enable dynamically discovering any elements associated with computers 1, 2, 32, respectively, based on any

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events defined in the databases 11 and/or 21, nor are such teachings suggested. Rather, the query objects 143 disclosed in Reed contain static query methods that may be executed in the same manner each time based on their programming and not based on any triggering query events related to any access points to associated computers that can be discovered dynamically.

The Office is now directed to page 2, lines 20-24 in the above-identified application, which states that the disclosed schema enables monitored computing devices to provide information about themselves to a management computing device in response to requests from the management device. The schema also allows the information to be discovered dynamically as the situation on each of the monitored devices changes, as discussed at page 2, lines 26-28. Thus, the monitored devices can provide information responsive to queries from the management computing device whereas the system in Reed can only provide information responsive to static queries defined in the composite communications object instances 900 and/or the query element communication objects 143 as discussed above. As such, Applicant respectfully requests the Office to reconsider and withdraw the outstanding rejection of claim 16 in view of the foregoing amendments and remarks. Since claims 17-18 depend from and contain the same limitations as claim 16, the Office is requested to reconsider and withdraw the rejection of these claims for the same reasons set forth above with respect to claim 16.

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The Office rejects claims 1–15 and 19–25 and 28–35 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,655,081 to Bonnell et al. (“Bonnell”) in view of Reed. The Office generally asserts that Bonnell discloses: a) a management computing device having software for monitoring multiple computing devices that are coupled to a network, said management computing device including an aggregator component that accumulates information regarding the multiple monitored computing devices (FIG. 1, ref. no. 10); b) a video display for displaying a result from the aggregator component (col. 2, lines 43–51); and c) a plurality of monitored computing devices coupled to the management computing device by means of the network to enable information regarding the monitored computing devices to be determined by the aggregator component of said management computing device (FIG. 1, ref. no. 14; col. 1, lines 54–57). The Office concedes, however, that Bonnell fails to disclose providing information that satisfies at least one ad-hoc query.

The Office asserts that Reed discloses processing query result sets for external data queries (col. 71, lines 40–58). The Office further asserts that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the above-identified teachings in Bonnell by incorporating the above-referenced teaching from Reed relating to providing information that satisfies at least one ad hoc query. The Office reasons that the combined teachings from Bonnell and Reed satisfy a need to solve the

problem of inefficient management of events occurring within a network.

Additionally, the Office characterizes the teachings from Reed as generally relating to a system for transferring metadata between a provider and a consumer computer resulting in intelligent information processing by the consumer computer and combined control by the provider and consumer computers of the types of content subsequently transferred.

As discussed above in connection with the rejection of claims 1–15, 19–25 and 28–35 under 35 U.S.C. § 112, Applicant amends claims 1, 6, 19, 28, 34 and 35 for the purpose of overcoming the § 112 rejections. As such, the claim amendments are not made to overcome the Bonnell or Reed references applied in the rejection under 35 U.S.C. § 103 discussed below. Therefore, the amendments are not made for reasons of patentability relating to distinguishing amended claims 1, 6, 19, 28, 34 and 35 from the Bonnell or Reed references. Accordingly, the scope of claims 1–15, 19–25 and 28–35 should remain the same as it was prior to these amendments except in any cases where such changes may result in broader coverage.

Neither Bonnell nor Reed, disclose nor suggest, “implementing a schema for ... providing the aggregator component with at least one access point, which can be traversed to dynamically discover information about one or more associated computing devices that satisfies the one or more queries, based on one or more query triggering events,” as recited in similar form throughout claims 1, 6, 19, 28, 34 and 35. Applicant respectfully directs the

Office's attention to FIGS. 1-3 and col. 5, lines 16-23 in Bonnell, which states that script programs 40 on a network management computer system 10 and script programs 42 on server computer system 14 are written in a manner that would enable querying and updating knowledge databases 47 and 75 shown in FIGS. 2 and 3, respectively. Applicant submits, however, that neither of the script programs 40, 42 enable the network management computer system 10 nor the server computer system 14 to dynamically provide information that satisfies any queries made directly on each other, let alone based on one or more triggering events defined in the script programs 40, 42.

Referring now to FIG. 8 and col. 5, lines 24-27 in Bonnell, a flowchart illustrates how resources on a server computer system 14 are discovered. The server 14 discovers resources at step 132 by interpreting the appropriate scripts from the script programs 42 and storing the results at step 134. If resources are discovered at step 136, then the server computer system 14 sends messages to the network management computer system 10 identifying the discovered resources at step 138. However, the messages sent at step 138 do not satisfy a query from the network management computer system 10. Instead, the messages contain information responsive to a static set of criteria defined in the script programs 42. For instance, the server 14 determines which resource classes to search for at step 120 so it can determine which scripts from the script programs 42 need to be executed at step 124 for discovering resources.

Additionally, neither step 138 nor any other steps shown in FIG. 8 are initiated by the occurrence of any events defined in either of the script programs 40, 42. In fact, all of the steps shown in FIG. 8 are initiated by either an agent's timer at step 116 or a signal sent from manager software at step 118. Referring now to FIG. 9 and col. 5, lines 28–30 in Bonnell, another flowchart illustrates how resources on the server computer system 14 are monitored. As shown at step 170, the server computer system 14 sends messages to the network management computer system 10 indicating the status of monitored resources. The server 14 interprets the script programs 42 at step 160 or executes commands from the agent's knowledge base 75 at step 152. However, the server 14 executes only those data collecting instructions for collecting data concerning which resources are discovered based on the script program, and are not triggered by dynamically generated data collecting events that it may detect.

Similarly, Reed does not disclose or suggest, implementing schema providing at least one access point that can be traversed for dynamically discovering information about one or more associated computing devices based on one or more query triggering events," as recited in similar form throughout claims 1, 6, 19, 28, 34 and 35. Applicant respectfully directs the Office's attention back to FIG. 1 and col. 11, line 65 through col. 12, line 58 in Reed discussed earlier with regard to the § 102(b) rejection of claim 16. As shown in FIG. 1, the provider computer 1 has a

provider database 11 that disseminates communication control information to be stored in the consumer database 21 of the consumer computer 2.

Again, Reed does not disclose or suggest that information maintained in either databases 11, 21 provide access points that could be traversed by either computers 2, 32 for dynamically discovering information about any associated objects managed by the consumer computer 1, such as the Web browser program 50 shown in FIG. 2. As discussed in Reed at col. 13, lines 5–10, programs executing on the provider computer 1 and the consumer computer 2 perform functions for transferring, maintaining and updating information at both locations, but there is no teaching or suggestion of any traversable access points being provided.

Likewise, the encoding methods included in the composite communications object instance 900 do not provide any sort of access point that could be traversed by any of the computers 2, 3 and/or 32, with reference back to col. 50, lines 43–45. The composite communications object instance 900 also lacks any structures amounting to a teaching or suggestion that could enable computers 2, 3 and/or 32 to dynamically discover information about any associated objects managed by the computers. Still further, the query objects 143 disclosed at col. 72, lines 6–9 contain static query methods that may be executed in the same manner each time based on their programming. The query objects 143 also do not

provide any access points that could be traversed for discovering any associated computers.

Again, the above-identified application discloses monitoring computing devices which maintain schema that can be discovered dynamically by a management computing device when events defined in the schema occur, as disclosed at page 2, lines 26–29 in the application. The schema may also be provided to the management computing device upon request and can be used by the management device to obtain information about the monitored devices, as disclosed at page 2, lines 20–28. The systems disclosed in Bonnell and Reed can only provide information responsive to static queries as discussed above.

In view of the foregoing remarks, the Office is respectfully requested to reconsider and withdraw the rejection of claims 1, 6, 19 and 28, 34 and 35 under §103(a). Since claims 2–5 depend from and include the subject matter recited in claim 1, claims 7–15 depend from and include the subject matter recited in claim 6, claims 20–25 depend from and include the subject matter recited in claim 19, and claims 29–33 depend from and include the subject matter recited in claim 28, they are patentable in the same manner as claims 1, 6, 19 and 28 as well as other reasons that may not have been discussed herein.

Applicant respectfully submits that the foregoing remarks and amendments address all of the remaining issues for the above-identified application. Since it is believed no undue burden will result from the Office's consideration of the foregoing remarks and amendments, the requirements of 37 C.F.R. § 1.116 are believed satisfied. Accordingly, it is submitted that this case stands in condition for allowance. In the event that there are any outstanding matters remaining in the above-identified application, the Office is invited to contact the undersigned to discuss this application.

Respectfully submitted,

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